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MINGDE RD., PUYAN, BINJIANG, HANGZHOU, CHINA.



PLAY • READ • INSPIRE

THE LEARNING BOOKLET

CLIMBING DINOS
TRICERATOPS & T-REX



Transform into a hopping T-Rex








WARNING:
CHOKING HAZARD - Small parts,
Not for children under 3 years.

AGES 8+



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WARNING MESSAGE

GENERAL WARNING

Before you begin, please read through the instructions together with your children. Make sure you understand the safety messages. Please keep the packaging and instructions, as they contain important information.

This kit is designed for children over 8 years of age. This product contains small parts which may pose a choking hazard. It is not suitable for children under 3 years old. Please keep individual parts and the fully-assembled product away from children under 3 years of age.

Screws and other metal parts may have sharp edges. Children should have adult supervision when assembling the product.

This kit is intended for indoor use. Water and rain will damage the electronic components. Last but not least, please clean the parts and finished product with a damp cloth. Make sure to remove the batteries from the battery compartment before cleaning. Do not use any soap or cleaning solutions.

OTHER WARNINGS

Using a screwdriver

- 1. Please ask parents or another adult permission to use the screwdriver.*
- 2. You must always be supervised by an adult when using the screwdriver. The metal may have sharp edges that can cause injury.*
- 3. Do not throw the screwdriver at other people or animals.*
- 4. Put the screwdriver back in its proper storage place after use.*
- 5. Do not use a screwdriver near children under 3 years of age.*

Using batteries

- Do not charge non-rechargeable batteries;*
- Do not mix different types of batteries or new and used batteries;*
- Insert batteries with correct polarities;*
- Remove exhausted batteries from the toy;*
- Do not short-circuit supply terminals;*
- Remove rechargeable batteries from the toy before charging;*
- Charge rechargeable batteries under adult supervision only.*
- Do not use rechargeable batteries.*

1 | WARNING MESSAGE





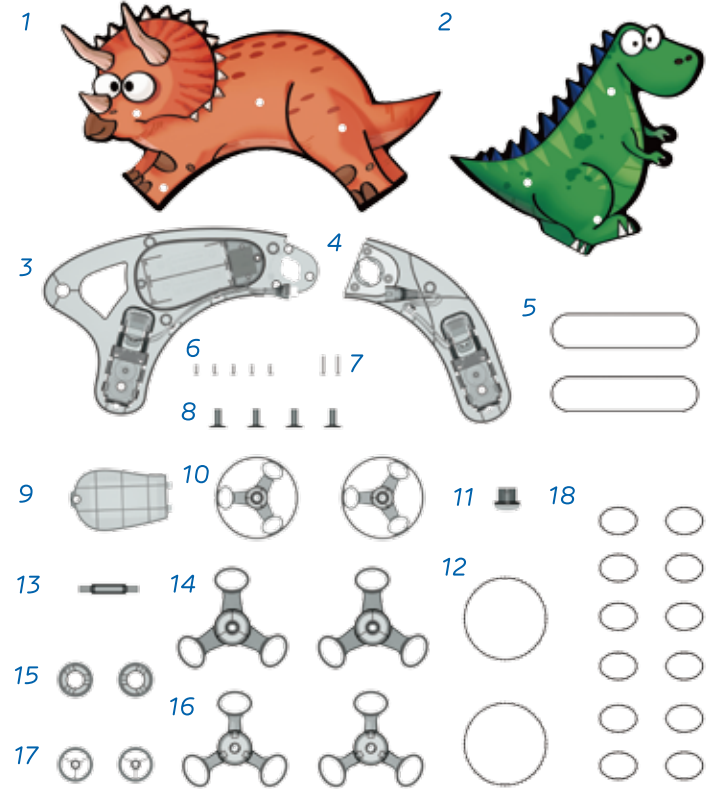
Read to be inspired!



2 PACKAGE CONTENTS



Package Contents

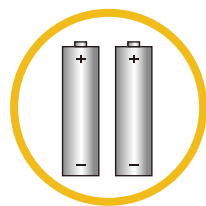


Serial	Name	Quantity	Serial	Name	Quantity
1	Triceratops figure	1	10	Front wheel	2
2	T-Rex figure	1	11	Twist-lock	1
3	Main body	1	12	Big rubber band	2
4	Rear body	1	13	Shaft	1
5	Belt	2	14	Rear three-spoked wheel	2
6	Standard screw	4+1(spare)	15	Notched pulley	2
7	Long screw	2	16	Front three-spoke wheel	2
8	Snap fastener	4	17	Standard pulley	2
9	Battery compartment cover	1	18	Small rubber band	12

Necessary but not included



Cross-head screwdriver



Batteries
2 x AA (1.5v)

3 | INSTALLATION

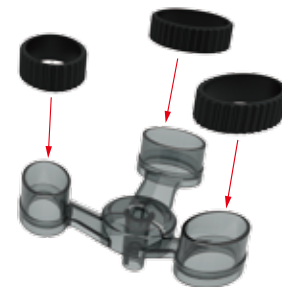


Assembly Steps

- 1 Install the small rubber bands on all the front and rear three-spoke wheels.



Front three-spoke wheel

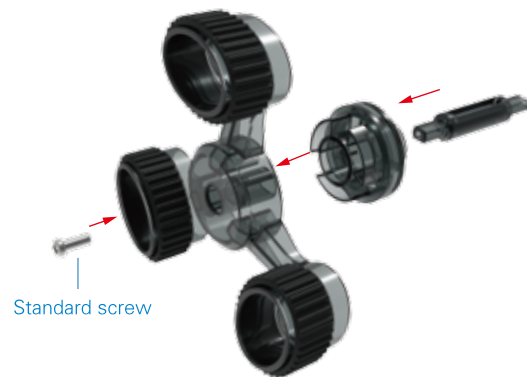


Rear three-spoke wheel

- 2 Install the big rubber bands on the two front wheels.

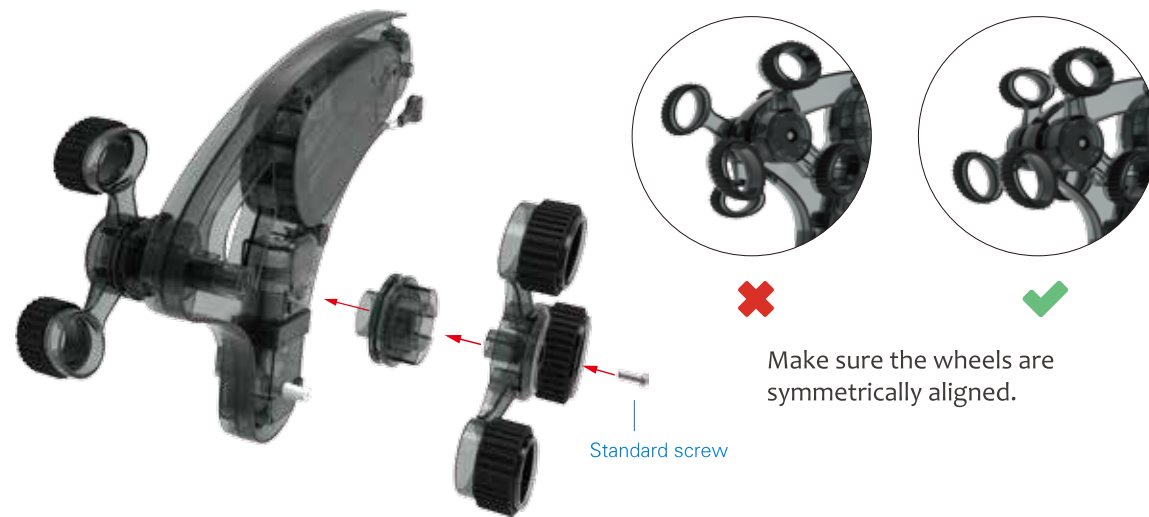


- 3 Interlock a notched pulley into a front three-spoke wheel. (Note that the front three-spoke wheels are smaller and flatter than the rear ones). Then screw the wheel to one of the shaft's ends.



Standard screw

- 4 Insert the shaft into its axis on the main body. Interlock the other notched pulley into the other front three-spoke wheel and screw the wheel to the other end of the shaft.

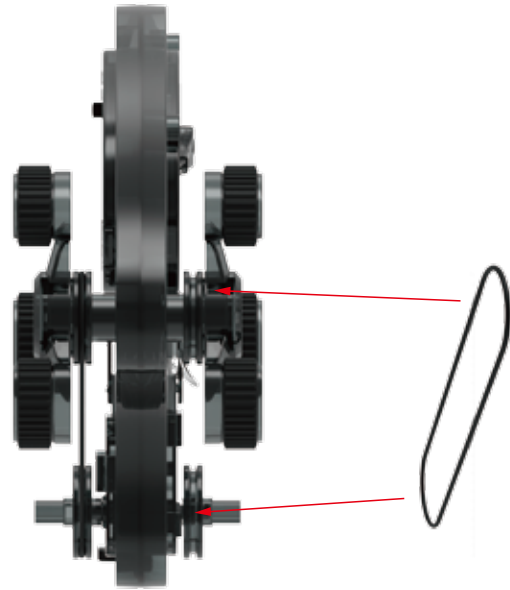


Make sure the wheels are symmetrically aligned.

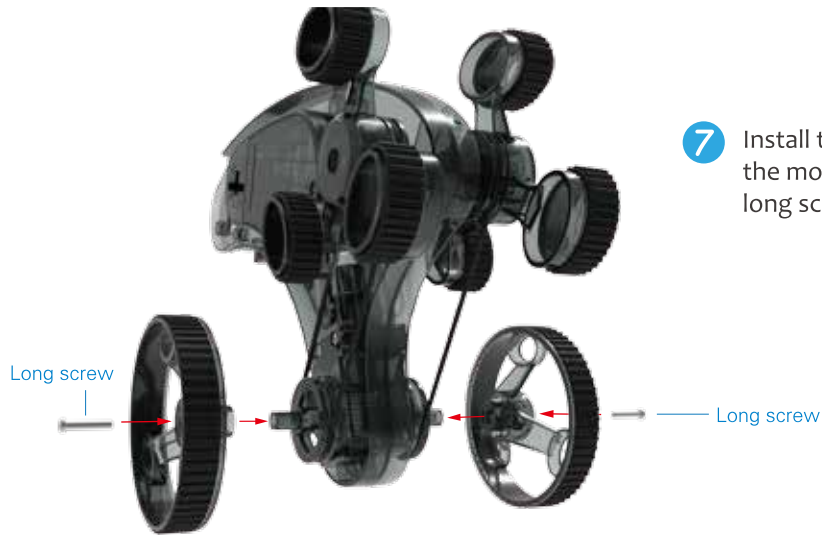
- 5 Insert the standard pulleys onto the motor shaft on the main body.



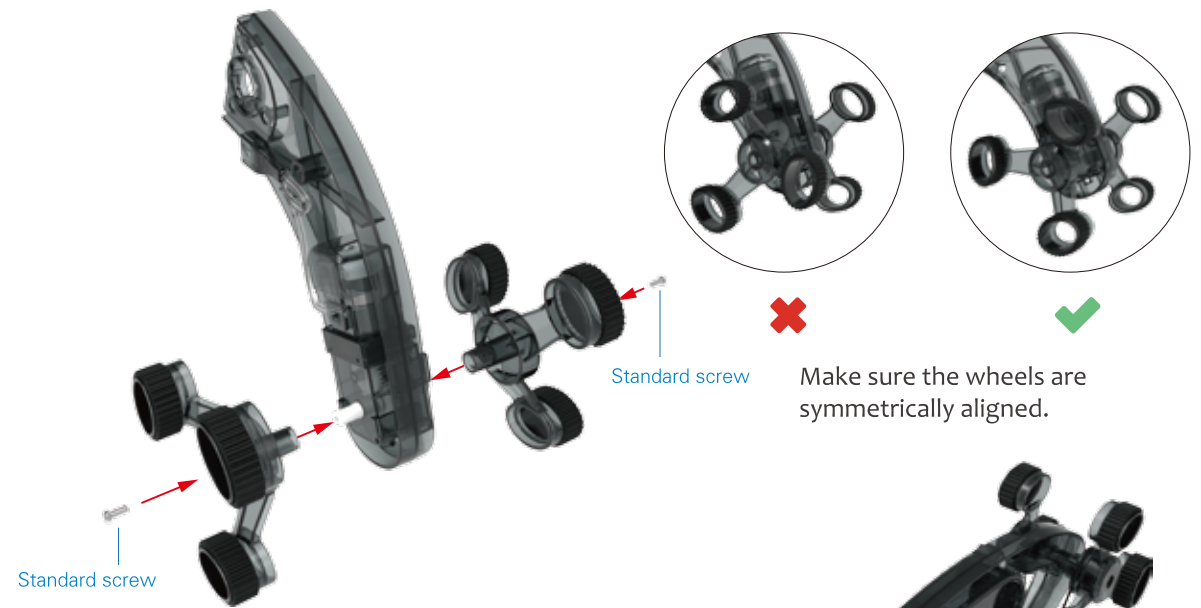
- 6 Install the belts to connect the notched pulley to the standard ones.



- 7 Install the main front wheels on the motor shaft and tighten with long screws.



- 8 Screw the rear three-spoke wheels to the motor shaft on the rear body. (Note that the rear three-headed wheels are larger than the front ones).



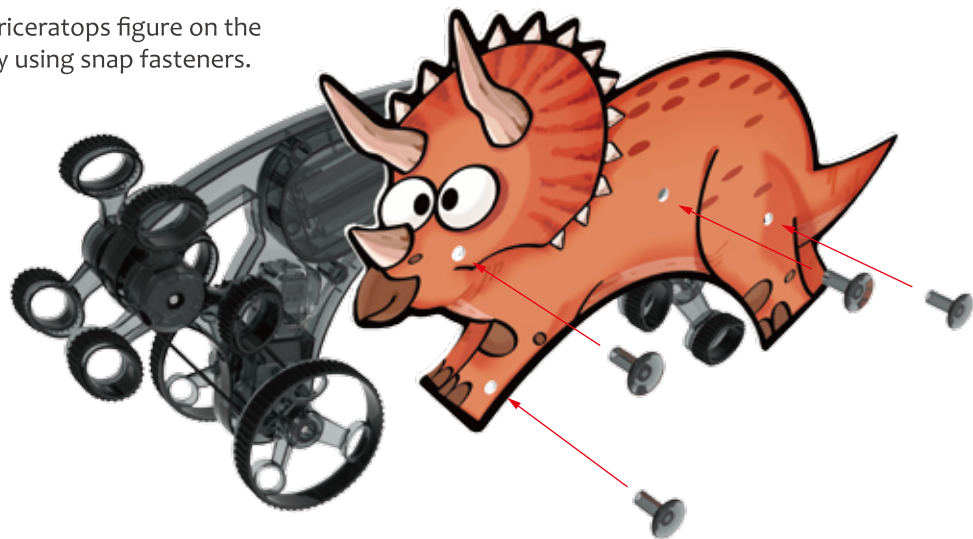
- 9 Connect the main body and the rear body together.



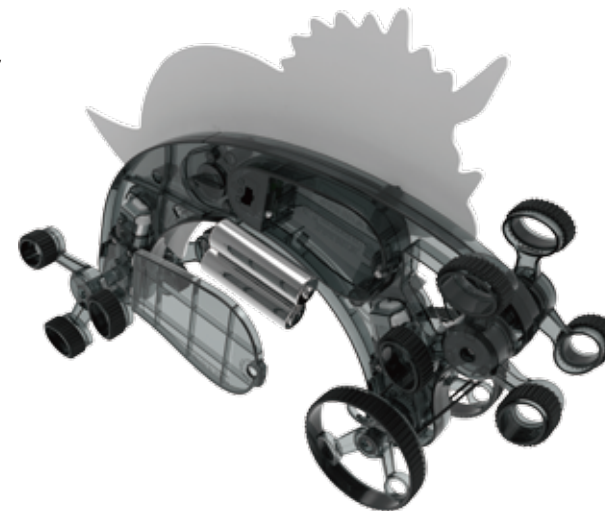
10 Fix them using the twist-lock.



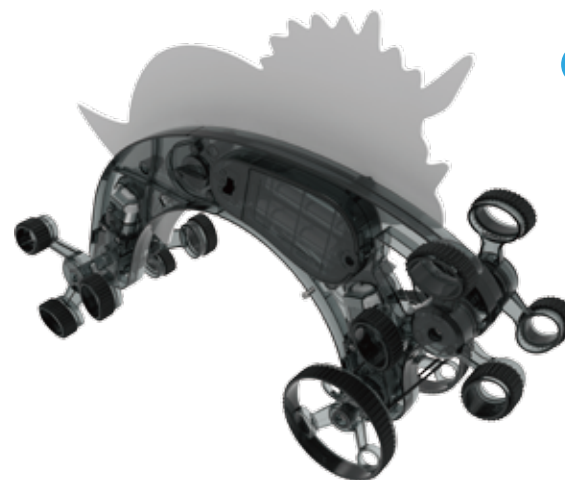
11 Fix the triceratops figure on the assembly using snap fasteners.



12 Unscrew and remove the battery compartment cover. Install the batteries according to the polarity signs.



13 Put the cover back and tighten with screw.

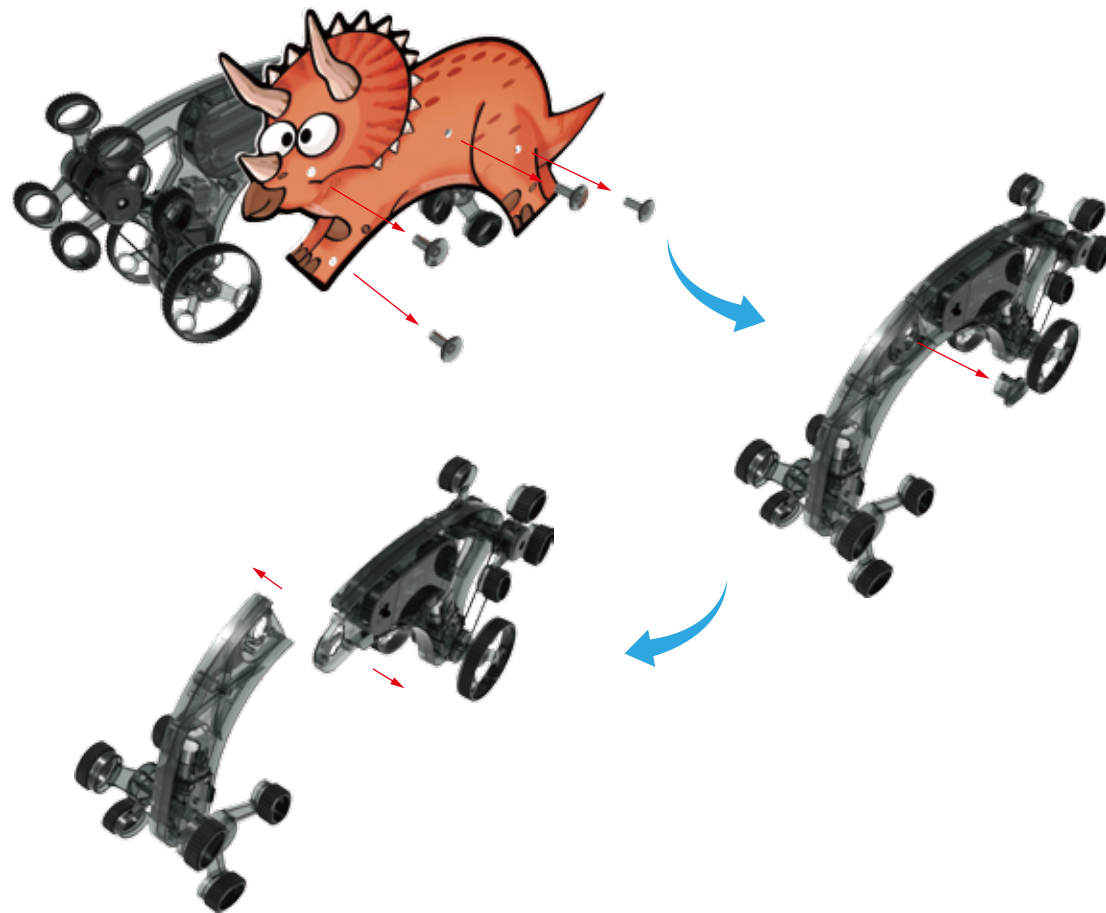


ASSEMBLY IS
COMPLETE!

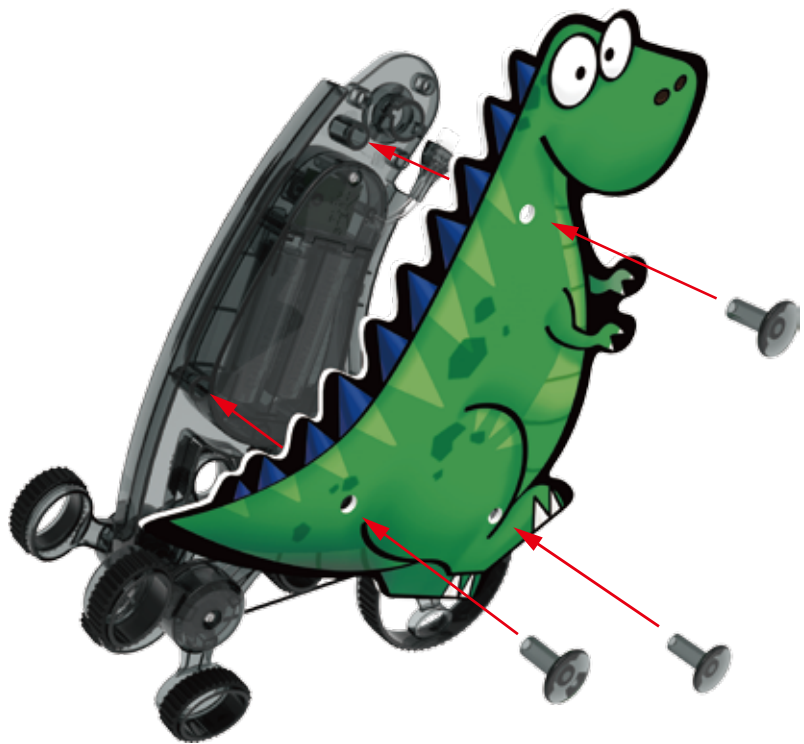


Change the Triceratops to a T-Rex

- 1 Unfasten the triceratops by removing the snap fasteners. Remove the twist lock and disassemble the two parts of the body.



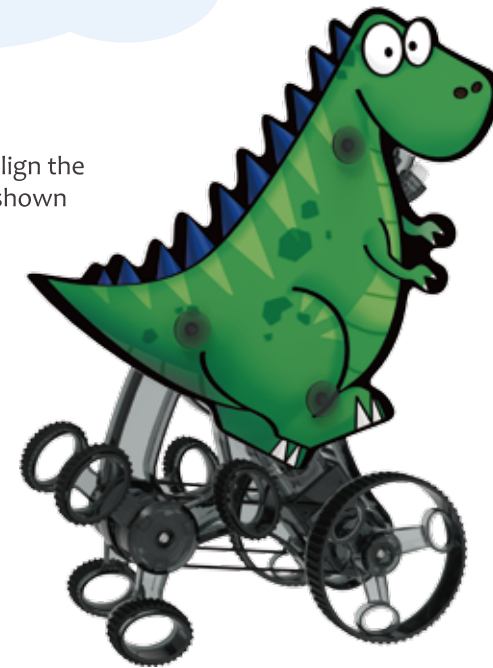
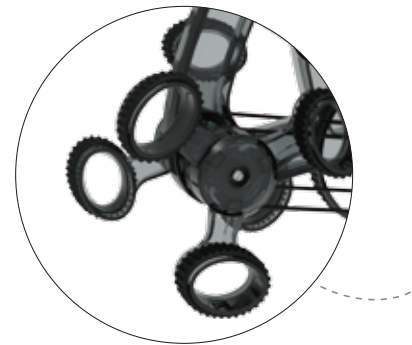
- 2 Place the T-Rex on the main body and fasten with snap fasteners.



ASSEMBLY IS COMPLETE!



You can reassemble and misalign the front three-spoke wheels as shown for different hopping style!



4 | FUN FACTS



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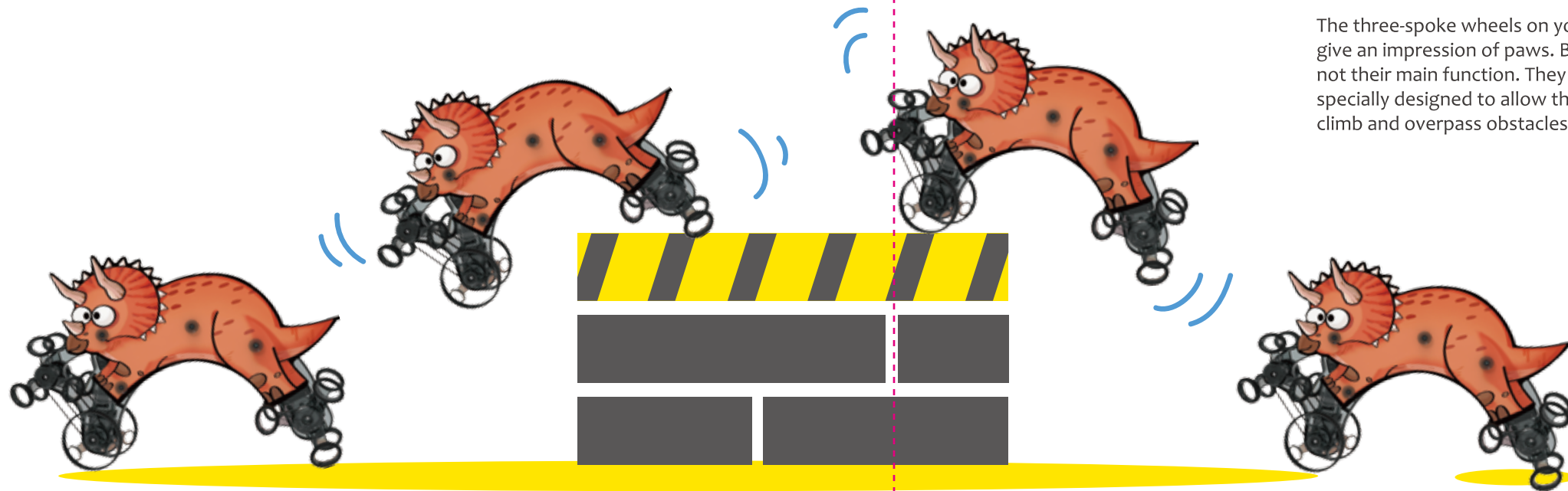


WHAT DOES IT DO?

Turn your climbing dino ON and watch it stomp. Place an obstacle on its way, the dino will climb and overcome it, let's test your climbing dino's limits. Try both set ups, the Triceratops and the T-Rex, see and understand the differences.

You will soon discover, or already discovered, that your dino is not agile similarly on every surface. If the surface is slippery, your dino might not climb very well. Try with many different obstacles, the best being carton box or paper.





HOW DOES IT WORK?

The three-spoke wheels on your dino give an impression of paws. But this is not their main function. They are specially designed to allow the dino to climb and overpass obstacles.

WHY THREE-SPOKE WHEELS?

The three-spoke wheels are particularly useful when the climbing dino reaches the edge of the obstacle. Their shape makes it easy to grab the upper part of the obstacle as if the dino was grabbing it with its paws. Try to understand the difference, and what would happen without these three-spoke wheels. Gain a better understanding of this phenomenon with the drawing on the next page.

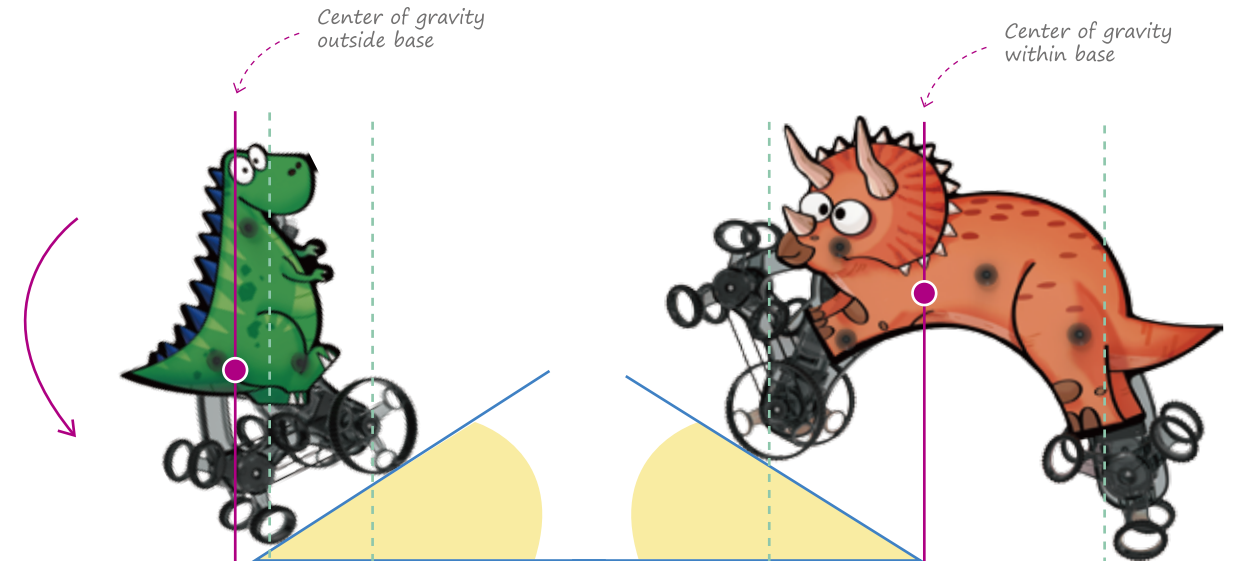


DOES THE T-REX CLIMB?

Change your Triceratops to a T-Rex referring to the last part of the installation instructions. The T-Rex can also overpass obstacles, but you will soon notice that it is not as agile as the Triceratops. It can only overcome low obstacles such as books. This all depends on "Center of Gravity". "Center of Gravity" or "Center of Mass" of an object is where most of its mass concentrated.



The Center of Gravity should always remain between the legs to keep the dino balanced. The Triceratops's center of gravity is located at the front, nearby its head. Thus, it can climb high without falling. However, the T-Rex's center of gravity is located further at its back. Thus, when the T-Rex climbs a high obstacle, it can easily fall.



Read to be inspired!

T-Rex

The Tyrannosaurus-Rex (Rex meaning King in Latin) is one of the most represented of all Dinosaurs. It used to live, like its cousin the Triceratops, in North America at approximately the same period. Unlike the Triceratops, the T-Rex was carnivores and fed on other smaller dinosaurs.





Read to be inspired!

Triceratops

The Triceratops is a Dinosaur that used to live in what is now North America. Its name means "three-horned face" in ancient Greek, due to the big horns it has on its forehead and nose. Despite its big size and weight, the Triceratops was herbivorous.

Which dinosaur is stronger?

If a Triceratops and T-Rex had to fight, which one would win?

It is actually difficult to say. It is generally admitted that a T-Rex wouldn't be able to beat a Triceratops head to head. The Triceratops, with its razor sharp horns could cause a lot of damage, while the T-Rex, had the most powerful jaws of all dinosaurs. There is evidence that Tyrannosaurus fed on Triceratops carcasses (you remember T-Rex were carnivores), but no evidence that a T-Rex actually ever killed a Triceratops.





Dinosaurs' extinction

When and why did the dinosaurs go extinct?

The Triceratops and the T-Rex live both at the same time, during the Cretaceous period. This period ended about 66 million years ago with the extinction of most animal species and plants on Earth. It is now commonly thought that this extinction was caused by the impact of a massive asteroid that slammed into Earth.



5 | *ACTIVITIES*

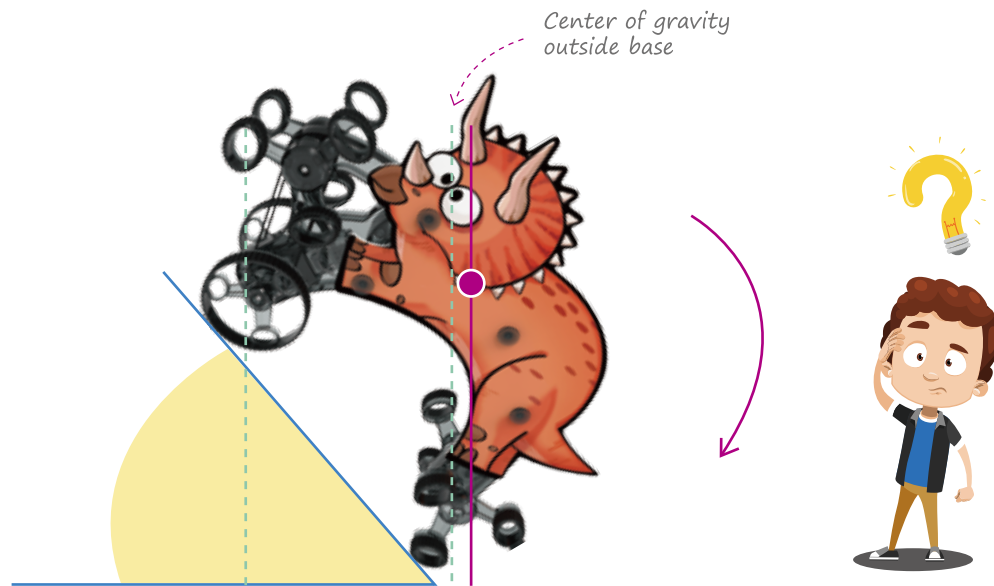


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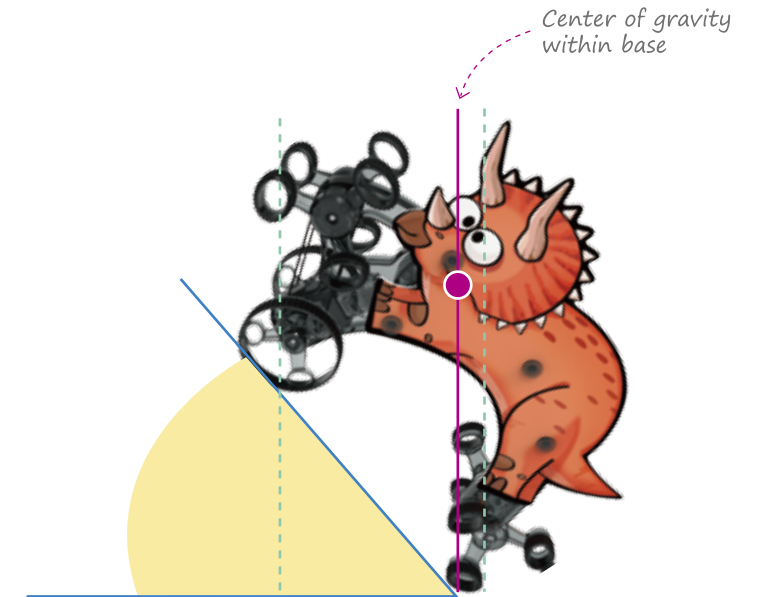
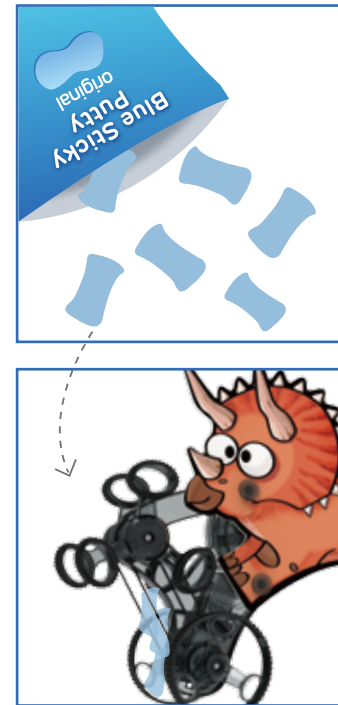


Enhance your dino's abilities

As you probably found out, the Triceratops cannot climb high obstacles. If you have read carefully the previous pages, you know that this is related to the "Center of Gravity". When the obstacle is too high, the center of gravity goes beyond the Triceratops's rear legs and then it falls. To enhance your dino's abilities to climb, follow these simple steps:



You can add some weight near the front wheels, this will shift its center of Gravity further to the front. You can, for example add some Blue Sticky Putty as illustrated. Pay attention not to block the rotation of the wheels and the pulleys. Enhancement is complete. The dino should be able to climb a bit higher. Try it on a higher obstacle and try adjusting the added weight. It might even climb stairs if well balanced.



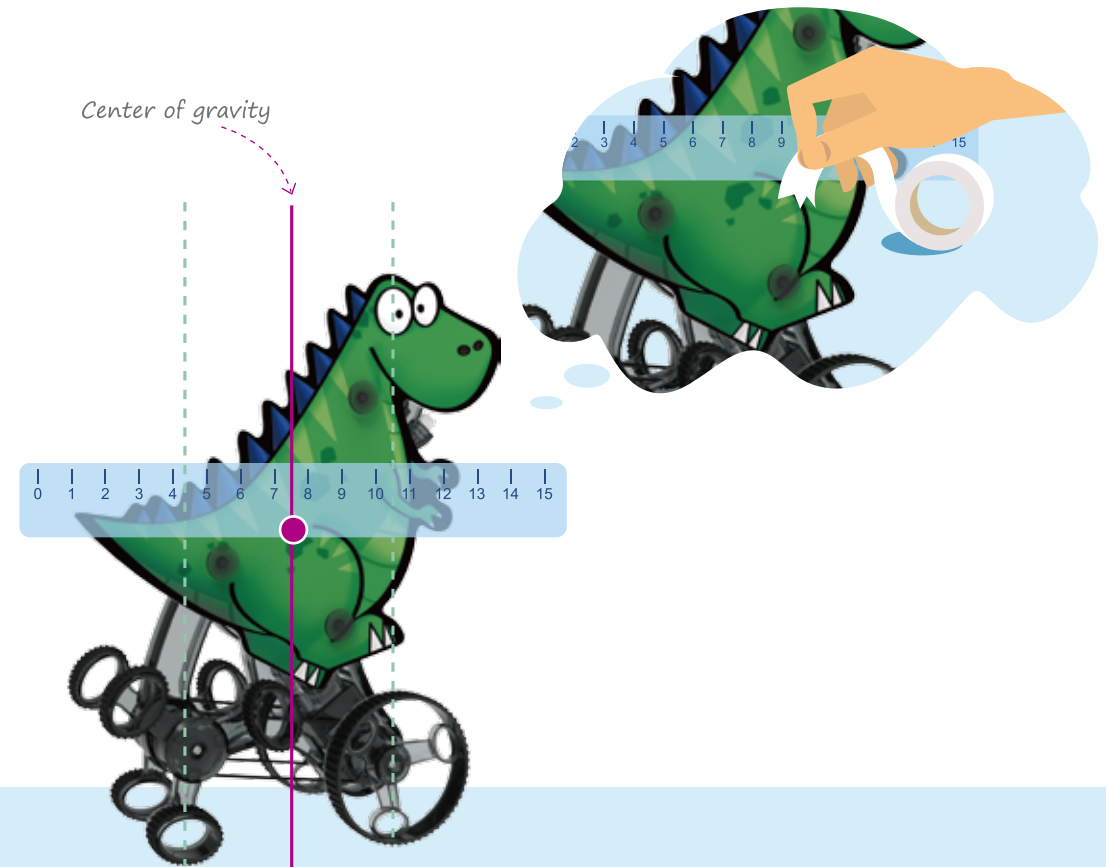
The Jumping stealing T-Rex

The T-Rex's way of walking is a bit more "jumpy" than the dino's. This is because its Center of Gravity. As we previously explained, is closer to the three-headed wheel. Most of its weight is thus concentrated near the three-headed wheel. This enhances the up and down movements. To make your T-Rex even more "jumpy", add it arms following these simple steps:

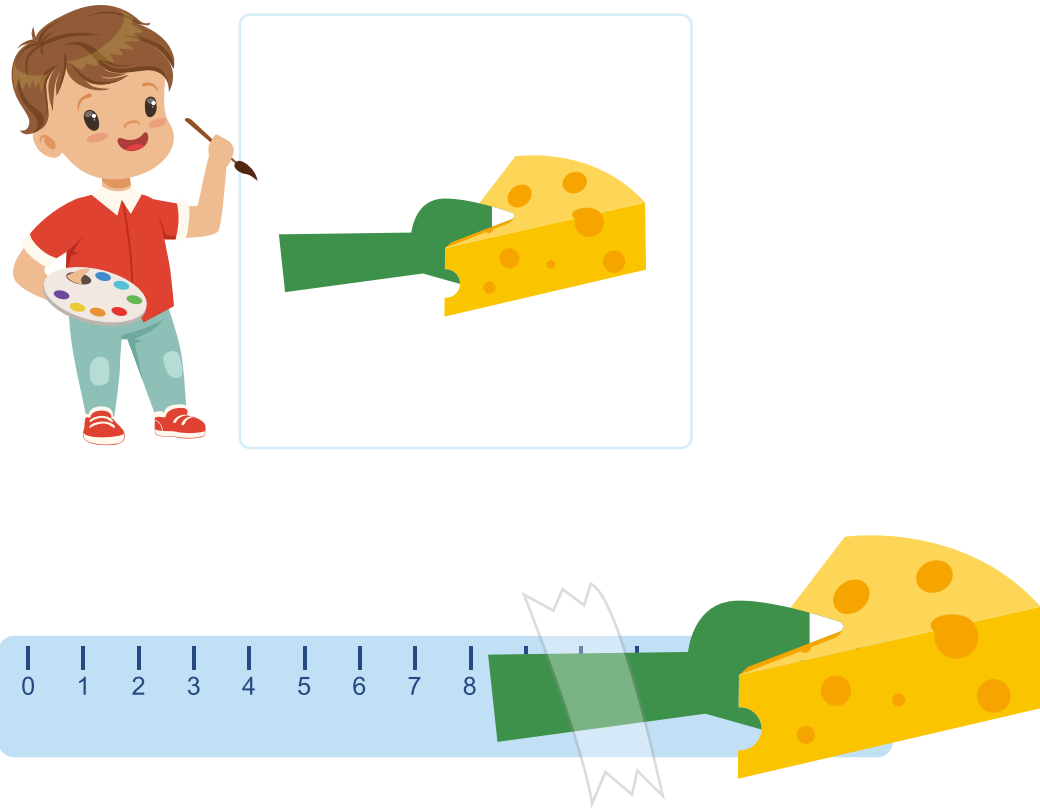
1. Find a "stick" about 10 to 20 cm (4 to 8 inches) long, the ideal being a 15cm (6 inches) steel ruler, for the arms.



2. Stick the steel ruler to the main body as illustrated, this will shift the Center of Gravity a bit closer to the front wheel.



3. You can draw hands holding a piece of cheese on a piece of paper and stick it to the ruler.



4. Turn your T-Rex ON. It will sneak away as if it just stole a piece of cheese.

